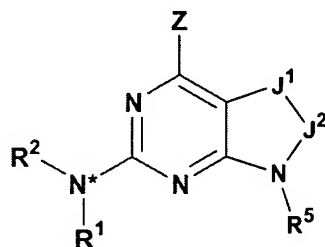


**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application.

***Listing of claims:***

1. (Currently Amended) A compound of Formula (I)



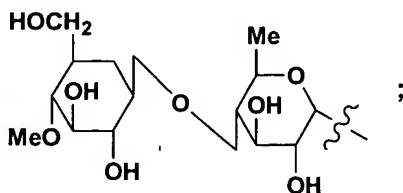
(I)

their enantiomers, diastereomers, and pharmaceutically acceptable salts, ~~prodrugs~~ and solvates thereof, wherein:

R<sup>1</sup> is hydrogen or alkyl;

R<sup>2</sup> is

- (a) heteroaryl or heterocyclo, either of which may be optionally independently substituted with one to three groups selected from T<sup>1</sup>, T<sup>2</sup> and/or T<sup>3</sup>;
  - (b) aryl substituted with one to three groups selected from T<sup>1</sup>, T<sup>2</sup>, and/or T<sup>3</sup> provided that at least one of T<sup>1</sup>, T<sup>2</sup> and/or T<sup>3</sup> is other than H; or
  - (c) aryl fused to a heteroaryl or heterocyclo ring forming a fused ring system bound to N\* through the aryl wherein the fused ring system may be optionally independently substituted with one to three groups selected from T<sup>1</sup>, T<sup>2</sup> and/or T<sup>3</sup>;
- provided that R<sup>2</sup> is not



Z is -NR<sup>3</sup>R<sup>4</sup>, -NR<sup>3</sup>SO<sub>2</sub>R<sup>6</sup>, OR<sup>4</sup>, SR<sup>4</sup>, haloalkyl or halogen;

J<sup>1</sup> is O or S;

J<sup>2</sup> is optionally substituted C<sub>2</sub>alkylene;

$R^3$  and  $R^4$  are independently H, alkyl, alkenyl, aryl, (aryl)alkyl, heteroaryl, (heteroaryl)alkyl, cycloalkyl, (cycloalkyl)alkyl, heterocyclo or (heterocyclo)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups  $T^4$ ,  $T^5$  and/or  $T^6$ ;

or  $R^3$  and  $R^4$  may be taken together with the nitrogen atom to which they are attached to form a heterocyclo or heteroaryl ring, either of which is optionally independently substituted where valance allows with one to three groups independently selected from  $T^4$ ,  $T^5$  and/or  $T^6$ ;

$R^5$  is

- (i) H, cyano, alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be independently substituted where valance allows with one to three groups  $T^7$ ,  $T^8$  and/or  $T^9$ ; or
- (ii)  $-C(O)_tR^7$ ,  $-C(O)-C(O)-C(O)OR^7$  or  $-SO_2R^8$ ;

$R^6$  is alkyl, alkenyl, aryl, (aryl)alkyl, heteroaryl, (heteroaryl)alkyl, cycloalkyl, (cycloalkyl)alkyl, heterocyclo, or (heterocyclo)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups  $T^4$ ,  $T^5$  and/or  $T^6$ ;

$R^7$  is

- (i) H, alkyl, alkenyl, heterocyclo, (heterocyclo)alkyl, (hydroxy)alkyl, (alkoxy)alkyl, (aryloxy)alkyl, heteroaryl, aryl or (aryl)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups  $T^7$ ,  $T^8$  and/or  $T^9$ ; or
- (ii)  $T^{11}$ ,  $-NHS(O)_t(T^{11})$ ,  $-NR^9R^{10}$  or  $(NR^9R^{10})alkyl$ ;

$R^8$  is

- (i) alkyl, alkenyl, heterocyclo, (heterocyclo)alkyl, (hydroxy)alkyl, (alkoxy)alkyl, (aryloxy)alkyl, heteroaryl, aryl or (aryl)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups  $T^7$ ,  $T^8$  and/or  $T^9$ ; or
- (ii)  $-NR^9R^{10}$  or  $(NR^9R^{10})alkyl$ ;

;

R<sup>9</sup> and R<sup>10</sup> are independently H, alkyl, alkenyl, aryl, (aryl)alkyl, heteroaryl, (heteroaryl)alkyl, cycloalkyl, (cycloalkyl)alkyl, heterocyclo or (heterocyclo)alkyl, any of which may be optionally independently substituted where valence allows with one to three groups T<sup>7</sup>, T<sup>8</sup> and/or T<sup>9</sup>;

T<sup>1</sup>-T<sup>9</sup> are each independently

(iii) alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be optionally independently substituted by one or more groups selected from alkyl, (hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, -OT<sup>10</sup>, -SH, -ST<sup>10</sup>, -C(O)<sub>t</sub>H, -C(O)<sub>t</sub>T<sup>10</sup>, -O-C(O)T<sup>10</sup>,  $\text{F}^{17}\text{C}(\text{O})_t\text{N}(\text{F}^{11})\text{F}^{10}-\text{SO}_3\text{H}$ ,  $\text{T}^{17}\text{C}(\text{O})_t\text{N}(\text{T}^{11})\text{T}^{10}$ , -SO<sub>3</sub>H, -S(O)<sub>t</sub>T<sup>10</sup>,  $\text{S}(\text{O})_t\text{N}(\text{T}^{11})\text{T}^{10}$ ,  $\text{S}(\text{O})_t\text{N}(\text{F}^{11})\text{F}^{10}$ , -T<sup>12</sup>-NT<sup>14</sup>T<sup>15</sup>, -T<sup>12</sup>-N(T<sup>11</sup>)-T<sup>13</sup>-NT<sup>14</sup>T<sup>15</sup>,  $\text{T}^{12}-\text{N}(\text{T}^{16})-\text{T}^{13}-\text{T}^{10}$ ,  $\text{F}^{12}-\text{N}(\text{F}^{16})-\text{F}^{15}-\text{F}^{10}$  and -T<sup>12</sup>-N(T<sup>16</sup>)-T<sup>13</sup>-H; or

(iv) halo, cyano, nitro, OH, oxo, -SH, amino, -OT<sup>10</sup>, -ST<sup>10</sup>, -C(O)<sub>t</sub>H, -C(O)<sub>t</sub>T<sup>10</sup>, -O-C(O)T<sup>10</sup>,  $\text{T}^{17}\text{C}(\text{O})_t\text{N}(\text{T}^{11})\text{T}^{10}$ ,  $\text{F}^{17}\text{C}(\text{O})_t\text{N}(\text{F}^{11})\text{F}^{10}$ , -SO<sub>3</sub>H, -S(O)<sub>t</sub>T<sup>10</sup>,  $\text{S}(\text{O})_t\text{N}(\text{T}^{11})\text{T}^{10}$ ,  $\text{S}(\text{O})_t\text{N}(\text{F}^{11})\text{F}^{10}$ , -T<sup>12</sup>-NT<sup>14</sup>T<sup>15</sup>, -T<sup>12</sup>-N(T<sup>11</sup>)-T<sup>13</sup>-NT<sup>14</sup>T<sup>15</sup>,  $\text{T}^{12}-\text{N}(\text{T}^{16})-\text{T}^{13}-\text{T}^{10}$ ,  $\text{F}^{12}-\text{N}(\text{F}^{16})-\text{F}^{15}-\text{F}^{10}$  or -T<sup>12</sup>-N(T<sup>16</sup>)-T<sup>13</sup>-H;

t is 1 or 2;

T<sup>10</sup> is alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl;

T<sup>12</sup> and T<sup>13</sup> are each independently a single bond, -T<sup>17</sup>-S(O)<sub>t</sub>-T<sup>18</sup>-, -T<sup>17</sup>-C(O)-T<sup>18</sup>-, -T<sup>17</sup>-C(S)-T<sup>18</sup>-, -T<sup>17</sup>-O-T<sup>18</sup>-, -T<sup>17</sup>-S-T<sup>18</sup>-, -T<sup>17</sup>-O-C(O)-T<sup>18</sup>-, -T<sup>17</sup>-C(O)<sub>t</sub>T<sup>18</sup>-, -T<sup>17</sup>-C(=NT<sup>19</sup>)-T<sup>18</sup>- or -T<sup>17</sup>-C(O)-C(O)-T<sup>18</sup>-;

T<sup>11</sup>, T<sup>14</sup>, T<sup>15</sup>, T<sup>16</sup> and T<sup>19</sup> are each independently

(i) hydrogen, alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be optionally

independently substituted where valence permits by one or more groups selected from alkyl, (hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl, (heteroaryl)alkyl, —SH, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O—C(O)T<sup>22</sup> and —S(O)<sub>i</sub>T<sup>22</sup>; or

- (ii) halo, cyano, nitro, OH, oxo, —SH, amino, —OT<sup>22</sup>, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O—C(O)T<sup>22</sup>, —SO<sub>3</sub>H, or —S(O)<sub>i</sub>T<sup>22</sup>; or
- (iii) T<sup>14</sup> and T<sup>15</sup> may together be alkylene or alkenylene, completing a 3- to 8-membered saturated or unsaturated ring together with the atoms to which they are attached, which ring is substituted with one or more groups listed in the description of T<sup>20</sup>; or
- (iv) T<sup>14</sup> or T<sup>15</sup>, together with T<sup>11</sup>, may be alkylene or alkenylene completing a 3- to 8-membered saturated or unsaturated ring together with the nitrogen atoms to which they are attached, which ring is substituted with one or more groups listed in the description of T<sup>20</sup>; or
- (v) T<sup>14</sup> and T<sup>15</sup> or T<sup>11</sup> and T<sup>16</sup> together with the nitrogen atom to which they are attached may combine to form a group —N=CT<sup>20</sup>T<sup>21</sup>;

T<sup>17</sup> and T<sup>18</sup> are each independently a single bond, alkylene, alkenylene or alkynylene;

T<sup>20</sup> and T<sup>21</sup> are each

- i. independently hydrogen, alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be optionally independently substituted where valence permits by one or more groups selected from alkyl, (hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl, (heteroaryl)alkyl, —SH, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O—C(O)T<sup>22</sup> and —S(O)<sub>i</sub>T<sup>22</sup>; or
- ii. halo, cyano, nitro, OH, oxo, —SH, amino, —OT<sup>22</sup>, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O—C(O)T<sup>22</sup>, —SO<sub>3</sub>H, —S(O)<sub>i</sub>T<sup>22</sup> or S(O)<sub>i</sub>N(T<sup>11</sup>)T<sup>22</sup>; and

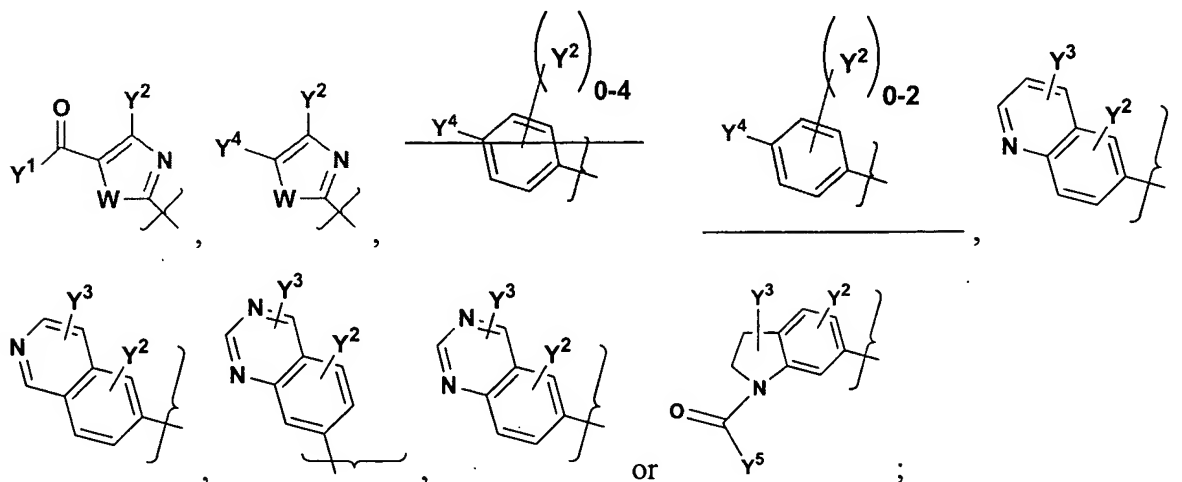
T<sup>22</sup> is alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl.

2. (Currently Amended) A compound of claim 1, their enantiomers, diastereomers, and pharmaceutically acceptable salts, ~~prodrugs~~ and solvates thereof, wherein

R<sup>2</sup> is

- (a) heteroaryl optionally independently substituted with one to three groups selected from T<sup>1</sup>, T<sup>2</sup> and/or T<sup>3</sup>;
- (b) aryl substituted with one to three groups selected from T<sup>1</sup>, T<sup>2</sup>, and/or T<sup>3</sup> provided that at least one of T<sup>1</sup>, T<sup>2</sup> and/or T<sup>3</sup> is other than H; or
- (c) aryl fused to a heteroaryl or heterocyclo ring forming a fused ring system bound to N\* through the aryl wherein the fused ring system may be optionally independently substituted with one to three groups selected from T<sup>1</sup>, T<sup>2</sup> and/or T<sup>3</sup>.

3. (Currently Amended) A compound of claim 2, their enantiomers, diastereomers, and pharmaceutically acceptable salts, ~~prodrugs~~ and solvates thereof, wherein R<sup>2</sup> is chosen from:



W is O or S;

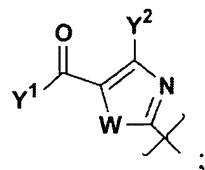
Y<sup>1</sup> is -NHT<sup>15</sup> or OT<sup>10</sup>;

Y<sup>2</sup> and Y<sup>3</sup> are independently hydrogen, halo, OT<sup>10</sup>, or alkyl or haloalkyl;

$Y^4$  is optionally substituted heteroaryl, cyano,  $C(O)_tT^{10}$  or  $S(O)_tNT^{14}T^{15}$ ; and  
 $Y^5$  is alkyl, haloalkyl,  $NHT^{15}$  or  $OT^{10}$ .

4. (Currently Amended) A compound of claim 3, their enantiomers, diastereomers, and pharmaceutically acceptable salts, ~~prodrugs~~ and solvates thereof, wherein:

$R^2$  is



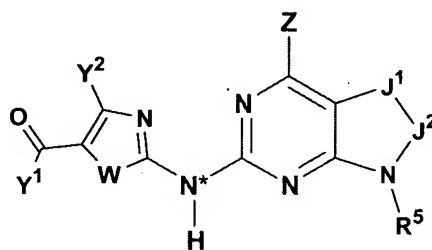
W is O or S;

$Y^1$  is  $-NHT^{15}$  or  $OT^{10}$ ; ~~or and~~

$Y^2$  is alkyl ~~or haloalkyl~~.

5. (Canceled)

6. (Currently Amended) A compound of Formula (Ia)



(Ia)

their enantiomers, diastereomers, and pharmaceutically acceptable salts, ~~prodrugs~~ and solvates thereof, wherein:

W is O or S;

$Y^1$  is  $-NHT^{15}$  or  $OT^{10}$ ;

$Y^2$  is alkyl or haloalkyl;

Z is  $-NR^3R^4$  or halogen;

$J^1$  is O;

$J^2$  is optionally substituted  $C_2$ alkylene;

R<sup>3</sup> and R<sup>4</sup> are independently H, alkyl, alkenyl, aryl, (aryl)alkyl, heteroaryl, (heteroaryl)alkyl, cycloalkyl, (cycloalkyl)alkyl, heterocyclo or (heterocyclo)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups T<sup>4</sup>, T<sup>5</sup> and/or T<sup>6</sup>;

or R<sup>3</sup> and R<sup>4</sup> may be taken together with the nitrogen atom to which they are attached to form a heterocyclo or heteroaryl ring, either of which is optionally independently substituted where valance allows with one to three groups independently selected from T<sup>4</sup>, T<sup>5</sup> and/or T<sup>6</sup>;

R<sup>5</sup> is

- (i) H, cyano, alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be independently substituted where valance allows with one to three groups T<sup>7</sup>, T<sup>8</sup> and/or T<sup>9</sup>; or
- (ii) -C(O)<sub>t</sub>R<sup>7</sup>, -C(O)-C(O)-C(O)OR<sup>7</sup> or -SO<sub>2</sub>R<sup>8</sup>;

R<sup>6</sup> is alkyl, alkenyl, aryl, (aryl)alkyl, heteroaryl, (heteroaryl)alkyl, cycloalkyl, (cycloalkyl)alkyl, heterocyclo or (heterocyclo)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups T<sup>4</sup>, T<sup>5</sup> and/or T<sup>6</sup>;

R<sup>7</sup> is

- (i) H, alkyl, alkenyl, heterocyclo, (heterocyclo)alkyl, (hydroxy)alkyl, (alkoxy)alkyl, (aryloxy)alkyl, heteroaryl, aryl or (aryl)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups T<sup>7</sup>, T<sup>8</sup> and/or T<sup>9</sup>; or
- (ii) -NR<sup>9</sup>R<sup>10</sup> or (NR<sup>9</sup>R<sup>10</sup>)alkyl;

R<sup>8</sup> is

- (i) alkyl, alkenyl, heterocyclo, (heterocyclo)alkyl, (hydroxy)alkyl, (alkoxy)alkyl, (aryloxy)alkyl, heteroaryl, aryl or (aryl)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups T<sup>7</sup>, T<sup>8</sup> and/or T<sup>9</sup>; or
- (ii) -NR<sup>9</sup>R<sup>10</sup> or (NR<sup>9</sup>R<sup>10</sup>)alkyl;

R<sup>9</sup> and R<sup>10</sup> are independently H, alkyl, alkenyl, aryl, (aryl)alkyl, heteroaryl, (heteroaryl)alkyl, cycloalkyl, (cycloalkyl)alkyl, heterocyclo or (heterocyclo)alkyl, any of which may be

optionally independently substituted where valence allows with one to three groups  $T^7$ ,  $T^8$  and/or  $T^9$ ;

$T^1$ - $T^9$  are each independently

$T^1$ - $T^9$  are each independently

- (i) alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be optionally independently substituted by one or more groups selected from alkyl, (hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl,  $-OT^{10}$ ,  $-SH$ ,  $-ST^{10}$ ,  $-C(O)_tH$ ,  $-C(O)_tT^{10}$ ,  $-O-C(O)T^{10}$ ,  $F^{17}C(O)_tN(T^{11})F^{10}-SO_3H$ ,  $-T^{17}C(O)_tN(T^{11})T^{10}$ ,  $-SO_3H$ ,  $-S(O)_tT^{10}$ ,  $-S(O)_tN(T^{11})T^{10}$ ,  $S(O)_tN(T^{11})F^{10}$ ,  $-T^{12}-NT^{14}T^{15}$ ,  $-T^{12}-N(T^{11})-T^{13}-NT^{14}T^{15}$ ,  $-T^{12}-N(T^{16})-T^{13}-T^{10}$ ,  $-F^{12}-N(T^{16})-F^{15}-F^{10}$  and  $-T^{12}-N(T^{16})-T^{13}-H$ ; or
- (ii) halo, cyano, nitro, OH, oxo,  $-SH$ , amino,  $-OT^{10}$ ,  $-ST^{10}$ ,  $-C(O)_tH$ ,  $-C(O)_tT^{10}$ ,  $-O-C(O)T^{10}$ ,  $-T^{17}C(O)_tN(T^{11})T^{10}$ ,  $F^{17}C(O)_tN(T^{11})F^{10}$ ,  $-SO_3H$ ,  $-S(O)_tT^{10}$ ,  $-S(O)_tN(T^{11})T^{10}$ ,  $S(O)_tN(T^{11})F^{10}$ ,  $-T^{12}-NT^{14}T^{15}$ ,  $-T^{12}-N(T^{11})-T^{13}-NT^{14}T^{15}$ ,  $-T^{12}-N(T^{16})-T^{13}-T^{10}$ ,  $-F^{12}-N(T^{16})-F^{15}-F^{10}$  or  $-T^{12}-N(T^{16})-T^{13}-H$ ;

$t$  is 1 or 2;

$T^{10}$  is alkyl, haloalkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl;

$T^{12}$  and  $T^{13}$  are each independently a single bond,  $-T^{17}-S(O)_tT^{18}$ ,  $-T^{17}-C(O)-T^{18}$ ,  $-T^{17}-C(S)-T^{18}$ ,  $-T^{17}-O-T^{18}$ ,  $-T^{17}-S-T^{18}$ ,  $-T^{17}-O-C(O)-T^{18}$ ,  $-T^{17}-C(O)_tT^{18}$ ,  $-T^{17}-C(=NT^{19})-T^{18}$  or  $-T^{17}-C(O)-C(O)-T^{18}$ ;

$T^{11}$ ,  $T^{14}$ ,  $T^{15}$ ,  $T^{16}$  and  $T^{19}$  are each independently

- (i) hydrogen, alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be optionally independently substituted where valence permits by one or more groups selected from



- alkyl, (hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyco)alkyl, heteroaryl, (heteroaryl)alkyl, —SH, —ST<sup>22</sup>, —C(O)<sub>t</sub>H, —C(O)<sub>t</sub>T<sup>22</sup>, —O—C(O)T<sup>22</sup> and —S(O)<sub>t</sub>T<sup>22</sup> or
- (ii) halo, cyano, nitro, OH, oxo, —SH, amino, —OT<sup>22</sup>, —ST<sup>22</sup>, —C(O)<sub>t</sub>H, —C(O)<sub>t</sub>T<sup>22</sup>, —O—C(O)T<sup>22</sup>, —SO<sub>3</sub>H, —S(O)<sub>t</sub>T<sup>22</sup> or —S(O)<sub>t</sub>N(T<sup>11</sup>)T<sup>22</sup> S(O)<sub>t</sub>N(T<sup>11</sup>)T<sup>22</sup>; or
- (iii) T<sup>14</sup> and T<sup>15</sup> may together be alkylene or alkenylene, completing a 3- to 8-membered saturated or unsaturated ring together with the atoms to which they are attached, which ring is substituted with one or more groups listed in the description of T<sup>20</sup>; or
- (iv) T<sup>14</sup> or T<sup>15</sup>, together with T<sup>11</sup>, may be alkylene or alkenylene completing a 3- to 8-membered saturated or unsaturated ring together with the nitrogen atoms to which they are attached, which ring is substituted with one or more groups listed in the description of T<sup>20</sup>; or
- (v) T<sup>14</sup> and T<sup>15</sup> or T<sup>11</sup> and T<sup>16</sup> together with the nitrogen atom to which they are attached may combine to form a group —N=CT<sup>20</sup>T<sup>21</sup>;

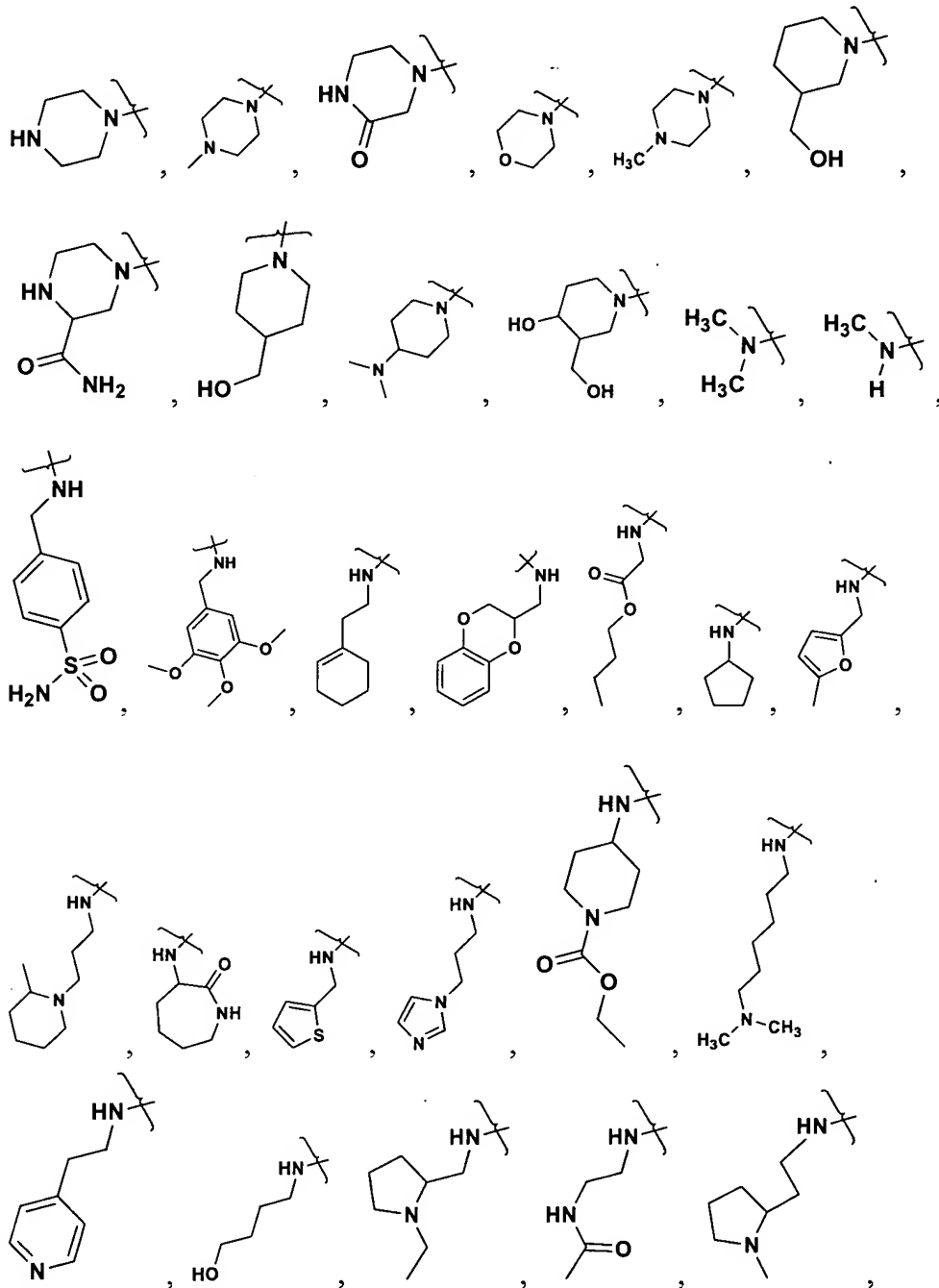
T<sup>17</sup> and T<sup>18</sup> are each independently a single bond, alkylene, alkenylene or alkynylene;

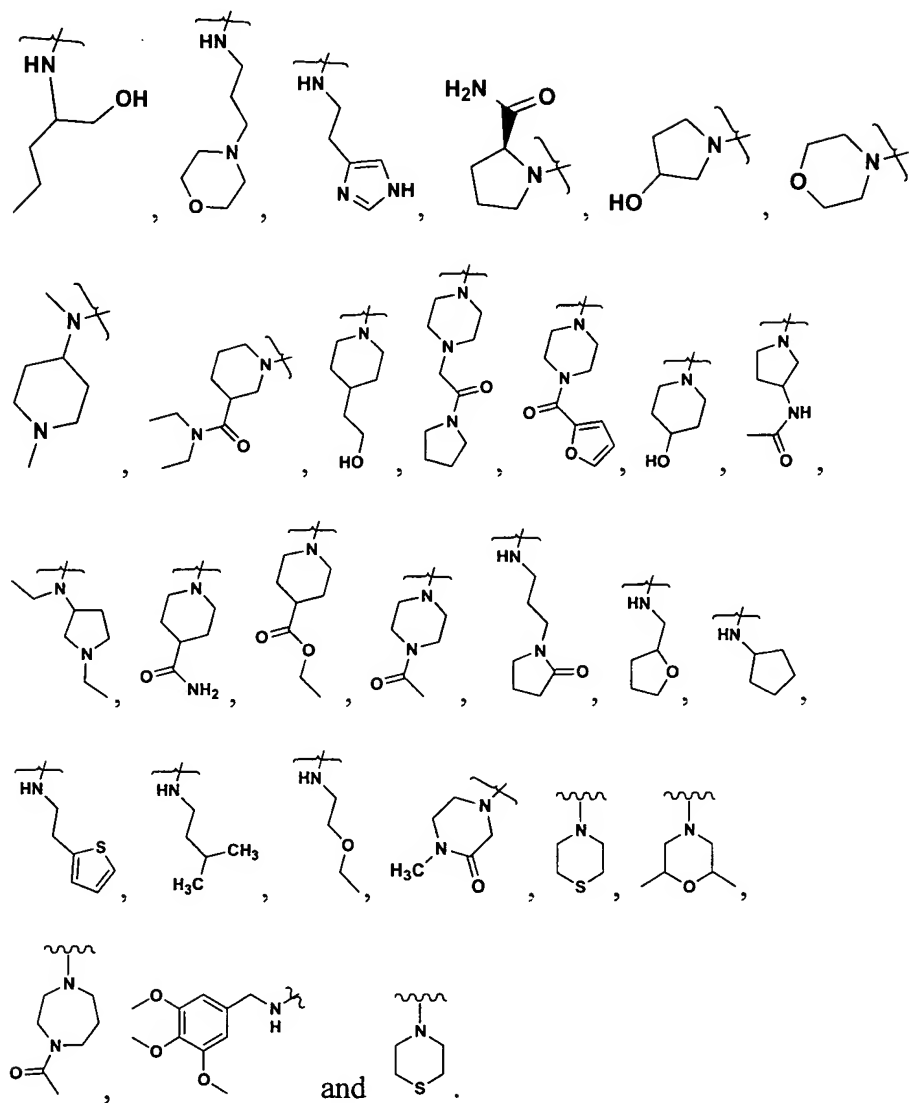
T<sup>20</sup> and T<sup>21</sup> are each

- (i) independently hydrogen, alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocylco)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be optionally independently substituted where valence permits by one or more groups selected from alkyl, (hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyco)alkyl, heteroaryl, (heteroaryl)alkyl, —SH, —ST<sup>22</sup>, —C(O)<sub>t</sub>H, —C(O)<sub>t</sub>T<sup>22</sup>, —O—C(O)T<sup>22</sup> and —S(O)<sub>t</sub>T<sup>22</sup>; or
- (ii) halo, cyano, nitro, OH, oxo, —SH, amino, —OT<sup>22</sup>, —ST<sup>22</sup>, —C(O)<sub>t</sub>H, —C(O)<sub>t</sub>T<sup>22</sup>, —O—C(O)T<sup>22</sup>, —SO<sub>3</sub>H, —S(O)<sub>t</sub>T<sup>22</sup> or S(O)<sub>t</sub>N(T<sup>11</sup>)T<sup>22</sup>; and

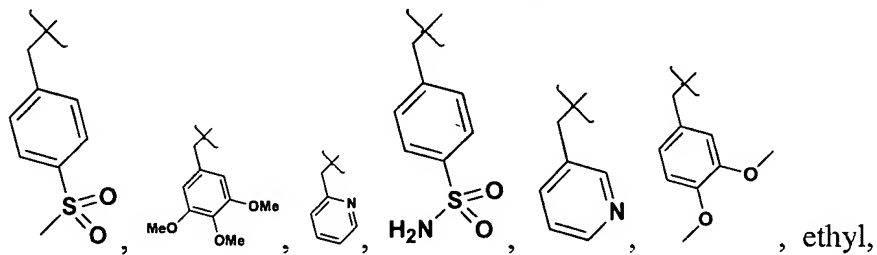
T<sup>22</sup> is alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl.

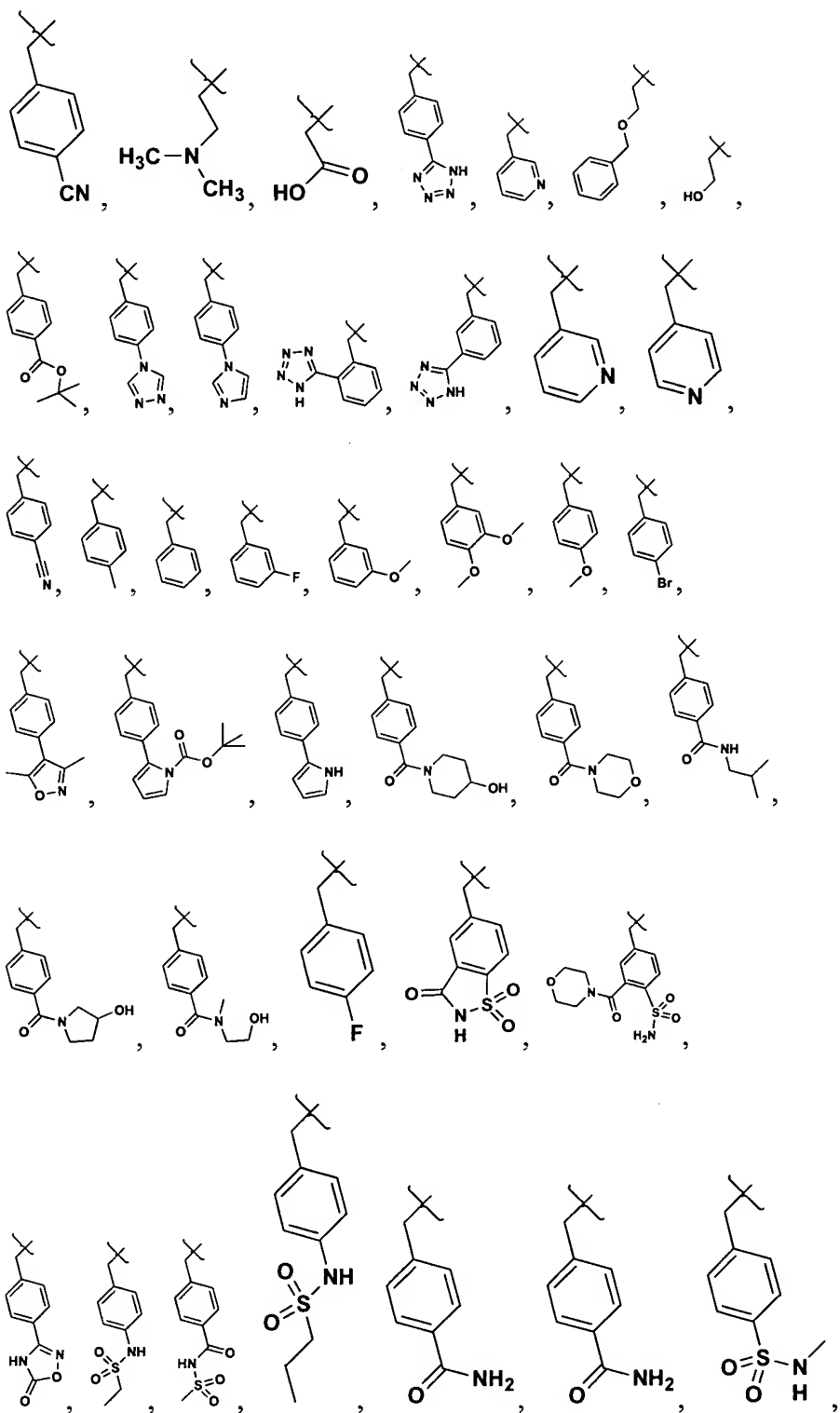
7. (Currently Amended) A compound of claim 6, their enantiomers, diastereomers, and pharmaceutically acceptable salts, ~~prodrugs~~ and solvates thereof, wherein Z is selected from:

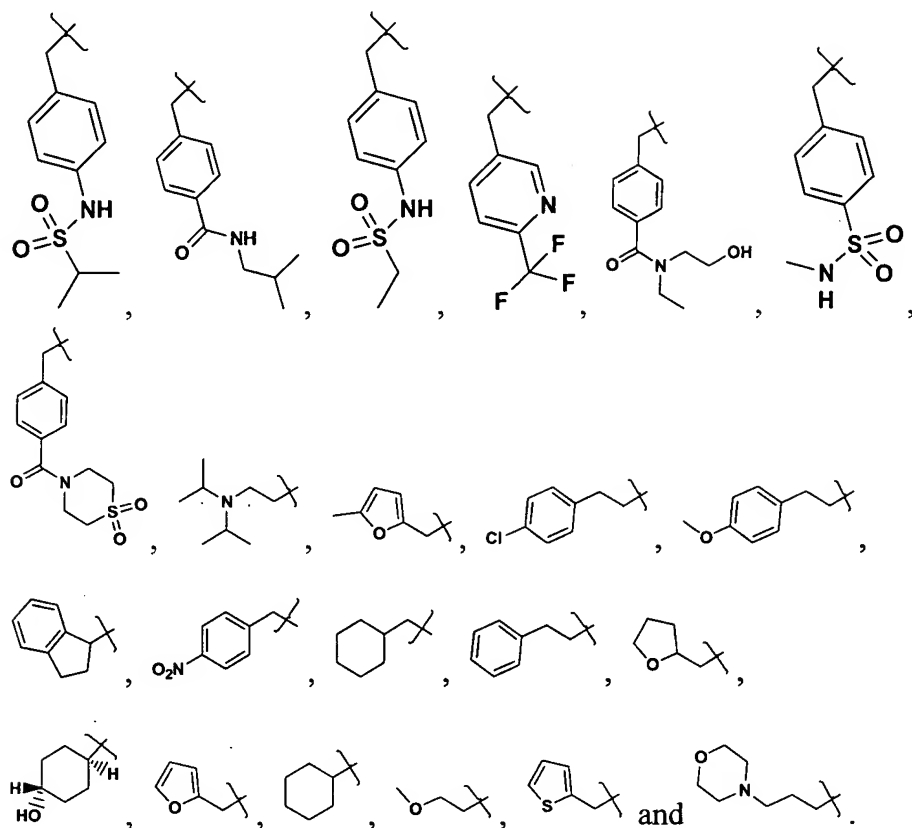




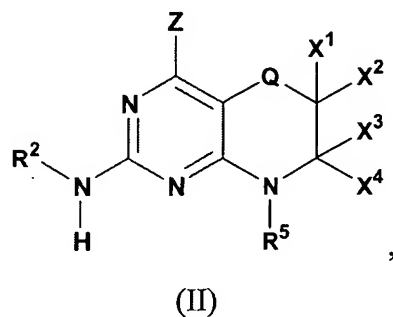
8. (Currently Amended) A compound of claim 6, their enantiomers, diastereomers, and pharmaceutically acceptable salts, ~~prodrugs~~ and solvates thereof, wherein R<sup>5</sup> is selected from:







9. (Currently Amended) A compound of claim 1 having Formula (II)



their enantiomers, diastereomers, and pharmaceutically acceptable salts, ~~prodrugs~~ and solvates thereof,

wherein:

Q is O or S; and

X<sup>1</sup>, X<sup>2</sup>, X<sup>3</sup> and X<sup>4</sup> are

- (i) independently chosen from hydrogen, T<sup>10</sup>, OT<sup>10</sup> and NT<sup>14</sup>T<sup>15</sup>; or

(ii)  $X^1$  and  $X^2$  or  $X^3$  and  $X^4$  may be taken together to be a carbonyl group.

10. (Currently Amended) A compound of claim 9, their enantiomers, diastereomers, and pharmaceutically acceptable salts, ~~prodrugs~~ and solvates thereof, wherein Q is O.

11. – 14. (Canceled)

15. (Currently Amended) A pharmaceutical composition comprising at least one compound of claim 1 and a pharmaceutically acceptable carrier or diluent.

16. (Currently Amended) The pharmaceutical composition of claim ~~15~~ 21 comprising at ~~least one compound of claim 14~~ a pharmaceutically acceptable carrier or diluent and at least one compound selected from:

- i. 2-[8-(4-Methanesulfonyl-benzyl)-4-(3-oxo-piperazin-1-yl)-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;  
4-Methyl-2-[4-morpholin-4-yl-8-(3,4,5-trimethoxy-benzyl)-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;  
4-Methyl-2-[4-morpholin-4-yl-8-(4-sulfamoyl-benzyl)-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;  
2-[4-(4-Hydroxy-piperidin-1-yl)-8-(4-sulfamoyl-benzyl)-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;  
4-Methyl-2-[4-(3-oxo-piperazin-1-yl)-8-(4-sulfamoyl-benzyl)-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;  
2-[8-(4-Methanesulfonyl-benzyl)-4-morpholin-4-yl-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester; and  
2-[4-(4-Hydroxy-piperidin-1-yl)-8-(4-methanesulfonyl-benzyl)-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester; or
- ii. the enantiomers, diastereomers, and pharmaceutically acceptable salts, ~~prodrugs~~ and solvates of each of (i).

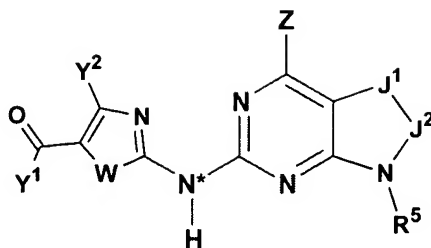
17. – 19 (Canceled).

20. (Currently Amended) ~~The method of claim 19~~ A method of treating a leukocyte activation-associated disorder which comprises administering an effective amount of at least one compound of claim 1 wherein said disorder is transplant rejection, graft versus host disease, rheumatoid arthritis, multiple sclerosis, juvenile diabetes, asthma, inflammatory bowel disease, ischemic or reperfusion injury, cell proliferation, or psoriasis.

21. (Currently Amended) A compound ~~of claim 1~~ selected from

- i. 2-[8-(4-Methanesulfonyl-benzyl)-4-(3-oxo-piperazin-1-yl)-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;  
4-Methyl-2-[4-morpholin-4-yl-8-(3,4,5-trimethoxy-benzyl)-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;  
4-Methyl-2-[4-morpholin-4-yl-8-(4-sulfamoyl-benzyl)-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;  
2-[4-(4-Hydroxy-piperidin-1-yl)-8-(4-sulfamoyl-benzyl)-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;  
4-Methyl-2-[4-(3-oxo-piperazin-1-yl)-8-(4-sulfamoyl-benzyl)-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;  
2-[8-(4-Methanesulfonyl-benzyl)-4-morpholin-4-yl-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester; and  
2-[4-(4-Hydroxy-piperidin-1-yl)-8-(4-methanesulfonyl-benzyl)-6,7-dihydro-pyrimido[5,4-b][1,4]oxazin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester; or
- ii. the enantiomers, diastereomers, and pharmaceutically acceptable salts, ~~prodrugs~~ and solvates of each of (i).

22. (New) A compound of Formula (Ia)



(Ia)

their enantiomers, diastereomers, pharmaceutically acceptable salts, and solvates thereof, wherein:

W is O or S;

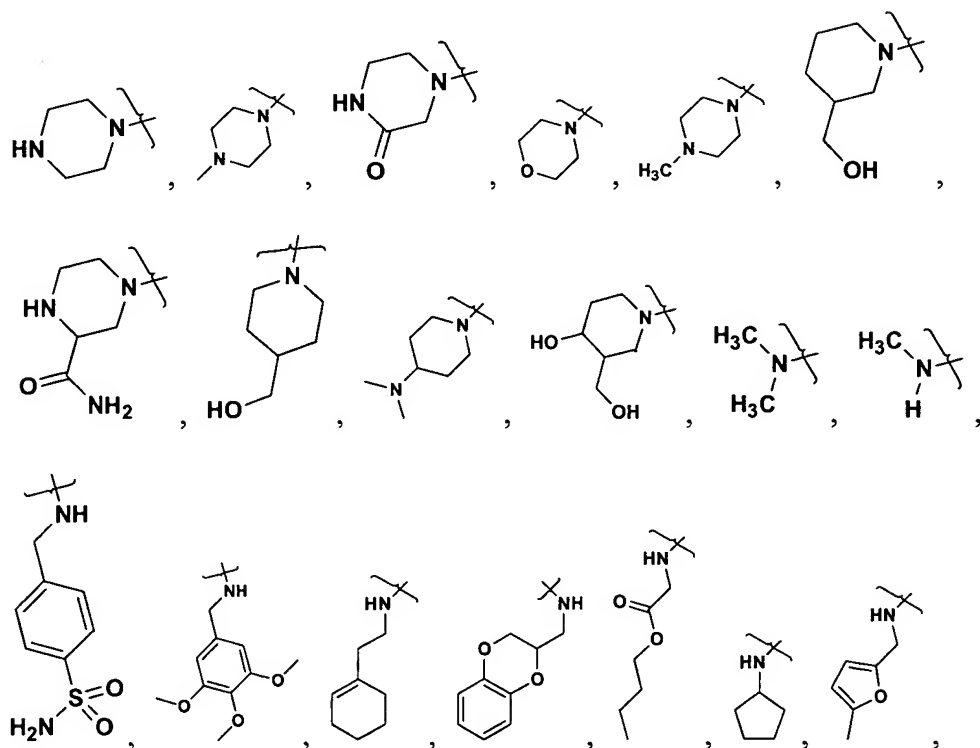
Y<sup>1</sup> is -NHT<sup>15</sup> or OT<sup>10</sup>;

Y<sup>2</sup> is alkyl or haloalkyl;

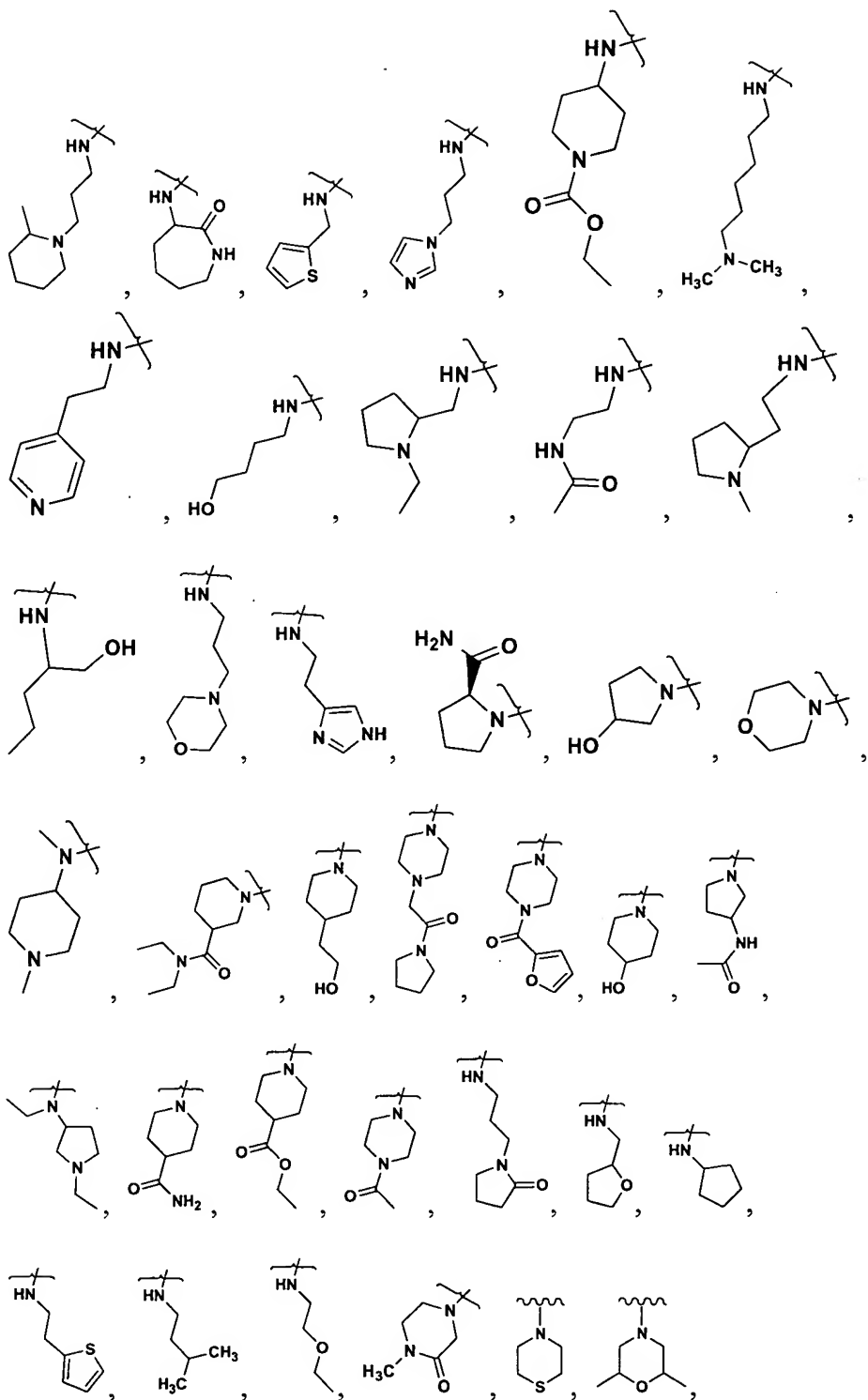
J<sup>1</sup> is O;

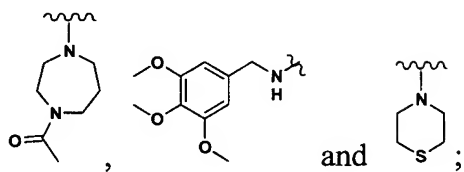
J<sup>2</sup> is optionally substituted C<sub>2</sub>alkylene;

Z is selected from:

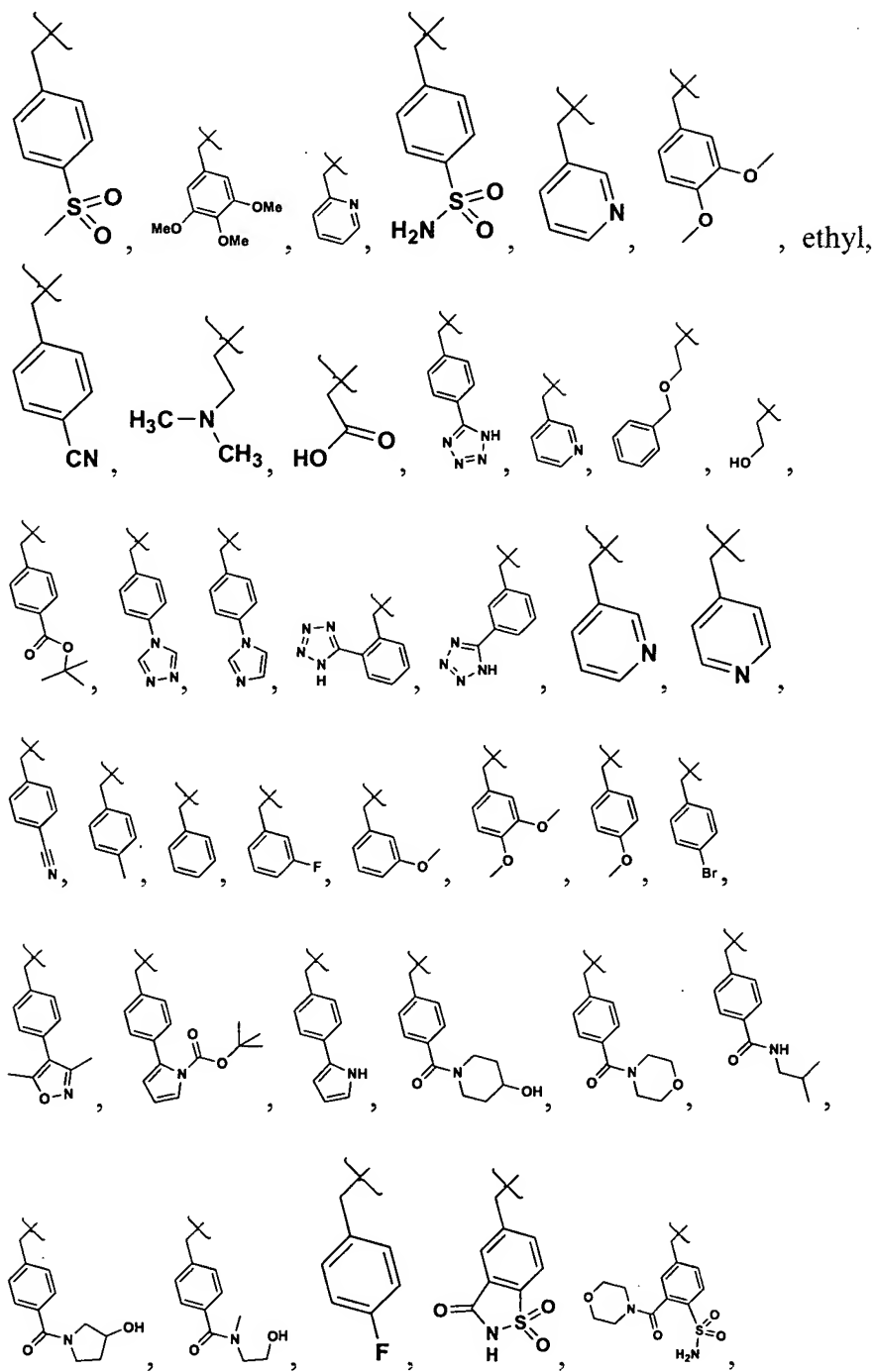


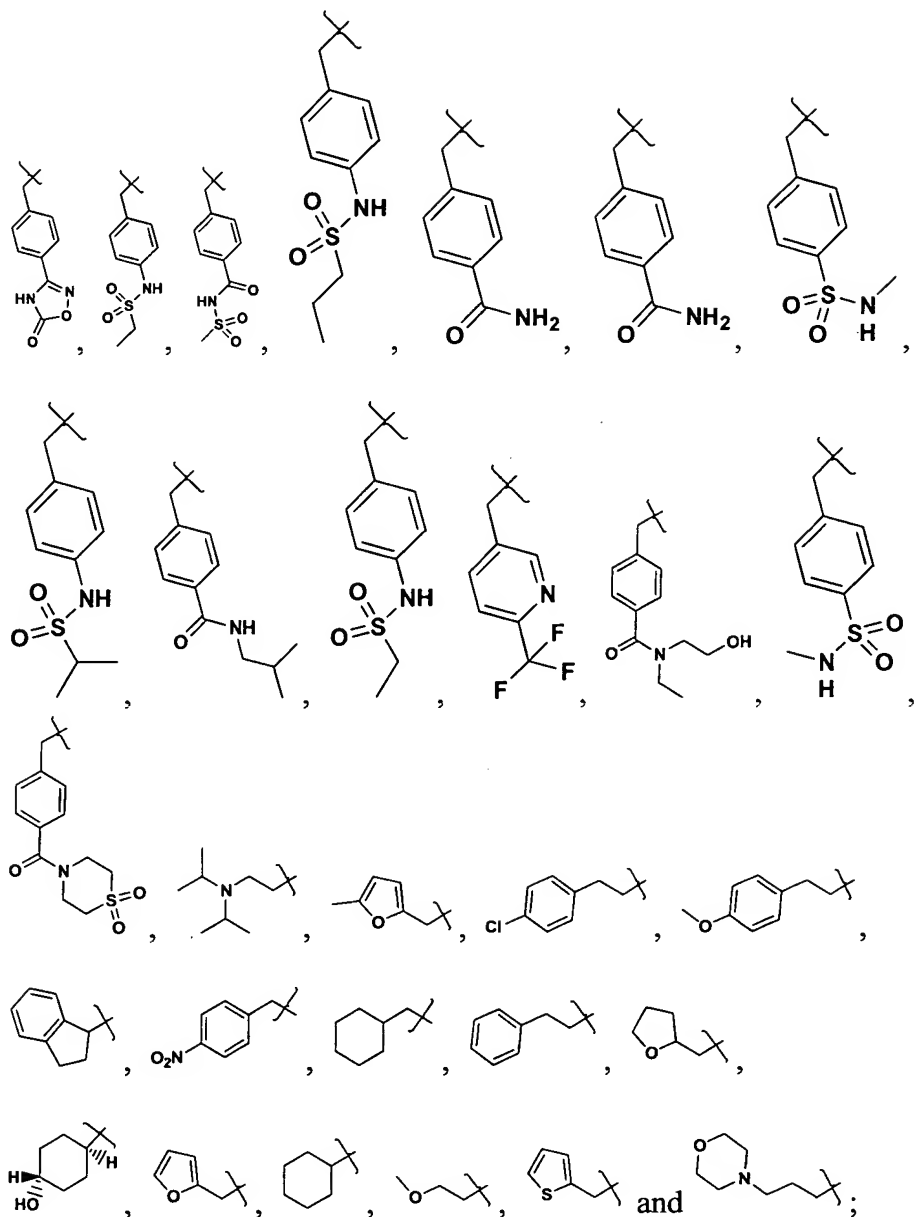






R<sup>5</sup> is selected from:





T<sup>10</sup> is alkyl, haloalkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl;

T<sup>15</sup> is (i) hydrogen, alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be optionally independently substituted where valence permits by one or more groups selected from alkyl,

(hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl, (heteroaryl)alkyl, —SH, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O—C(O)T<sup>22</sup> and —S(O)<sub>i</sub>T<sup>22</sup>; or

(ii) halo, cyano, nitro, OH, oxo, —SH, amino, —OT<sup>22</sup>, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O—C(O)T<sup>22</sup>, —SO<sub>3</sub>H, —S(O)<sub>i</sub>T<sup>22</sup> or —S(O)<sub>i</sub>N(T<sup>11</sup>)T<sup>22</sup>; and

T<sup>22</sup> is alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl.